Tricks *to* Improve *Your* Car

Piston Groove Cleaner; Tail-Light Guard; Accurate Painting Device; Other New Ideas

GOOD compression in a motor car engine cylinder depends on the fit of the rings in the cylinder and on the fit of the rings in the grooves of the piston. Many amateur auto mechanics fail on a ring-fitting job because they fail to realize the importance of piston ring fit in the cylinder grooves and the need for a clean groove that will permit the ring to operate without binding. Before you attempt to fit new rings scrape all carbon and gummed oil out of the piston ring grooves. A simple tool for this job can be made from an old ring. Grind or file off the ends until the remaining portion is about a third of a circle. Sharpen the edges as shown in Fig. 1 and you have a tool to remove the carbon with ease.

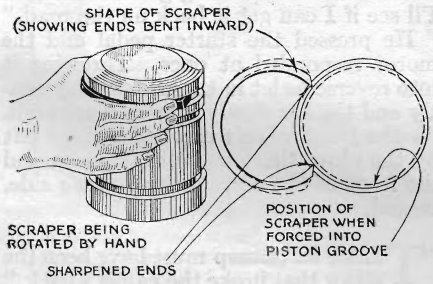

Fig. 1. A carbon scraper fashioned from an old piston ring makes an ideal tool to remove the carbon from the ring grooves in the piston

Dash Indicator Lights

INDICATOR lights fitted on your dash will tell you whether your tail and stop lights are properly burning. The wiring diagram of Fig. 2 shows how to fit and wire the indicator lights.

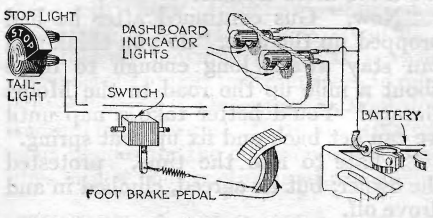

Fig. 2. Indicator lights on your dash board wired as shown may save you from being arrested and fined for not having tail-light lit

You can use ordinary dash lights of the type sold for automobile use, or you can get a pair of the jeweled indicator lights sold for radio use. The latter, fitted with jewels of the same color as the lights they indicate, will make a neat and attractive installation. The theory, of course, is that the indicator light is in series with the light it indicates and when either of the two bulbs in such a circuit burns out, the remaining goes out as well. Instead of 6–8-volt bulbs use 3½-volt bulbs.

Ten Dollars for an Idea!

C. A. Tubby, of Elizabeth, N. J., wins this month's prize of $10 with his suggestion of a motor car painting device (Fig. 3). POPULAR SCIENCE MONTHLY awards $10 each month, in addition to regular space rates, for the best idea for motorists. Other published contributions will be paid for at usual rates.

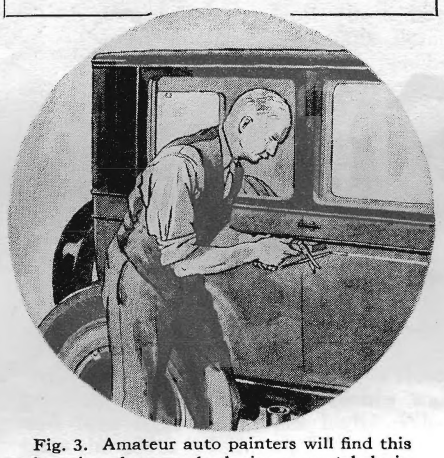

Fig. 3. Amateur auto painters will find this ingenious homemade device a great help in adding a stripe to the finished paint job

Ingenious Auto Striper

A SIMPLE aid for striping a car can be constructed from a block of wood, a wood screw and a clothespin. Fig. 3 shows the device in use. The pin is screwed to the block of wood. By turning the pin and moving the brush in the fork of the pin the location of the stripe with reference to the bead on the panel can be adjusted. The block is slid along the panel with the bead as guide.

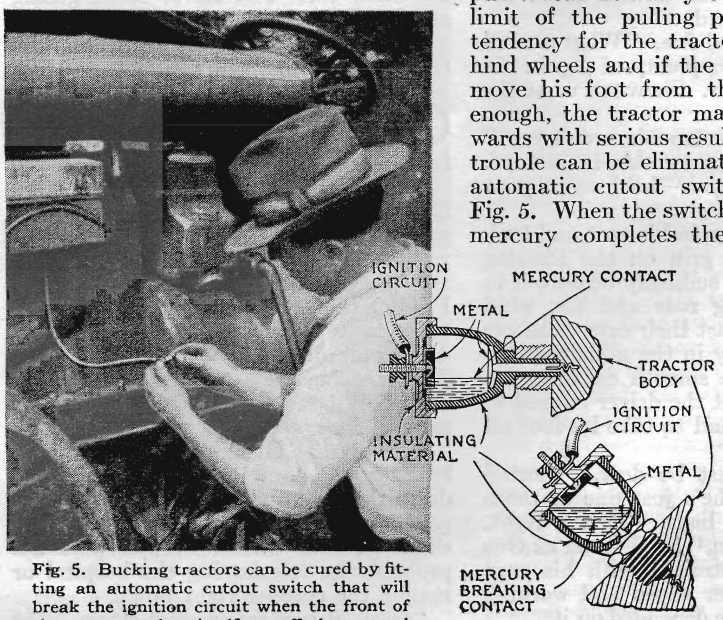

Fig. 5. Bucking tractors can be cured by fitting an automatic cutout switch that will break the ignition circuit when the front of the tractor raises itself up off the ground

Extra Curtain Adds Comfort

BY FITTING a curtain around the back of the front seat of the open touring car—with the method illustrated in Fig. 4—you can make the driver as comfortable as he would be in a runabout without at the same time closing in the whole car with the complete set of curtains. It will help to prevent drafts on the back of your neck and will to some extent reduce the force of the wind blowing on the passengers in the back seat, a service for which they will be grateful. In most cases, you will find that the special curtain can be fastened at the sides to the regular curtain fasteners provided on the car. Additional fasteners can be attached to the back of the seat and the top to hold the curtain at these points.

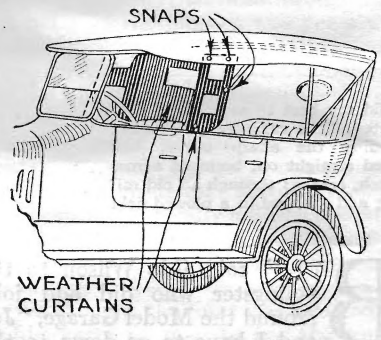

Fig. 4. A special curtain around the back of the front seat in the touring car will add greatly to the comfort of driver and riders

Curbing Unruly Tractors

THE small farm tractor that drives through cleated rear wheels has one bad habit. When an attempt is made to pull a load so heavy that it is near the limit of the pulling power, there is a tendency for the tractor to rear on its hind wheels and if the driver doesn't remove his foot from the throttle quick enough, the tractor may roll over backwards with serious results. This peculiar trouble can be eliminated by adding an automatic cutout switch as shown in Fig. 5. When the switch is horizontal the mercury completes the circuit between the electrodes, but when the tractor starts to rear up on its hind wheels the mercury flows away from one electrode and cuts off the ignition, thus stopping the engine and eliminating the chance of a serious accident occuring.